



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,626	03/29/2004	Stefano Benedetto Previdi	77366	2707
26327 7590 06/09/2008 THE LAW OFFICE OF KIRK D. WILLIAMS PO BOX 61538 DENVER, CO 80206-8538				
EXAMINER				
SIKRI, ANISH				
ART UNIT		PAPER NUMBER		
2143				
MAIL DATE		DELIVERY MODE		
06/09/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/811,626

Applicant(s)

PREVIDI ET AL.

Examiner

ANISH SIKRI

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dravida et al (US Pat 5,253,248).

Consider Claim 1, Dravida et al disclosed an apparatus comprising one or more processing elements and memory, wherein the memory stores one or more instructions that, when executed by said one or more processing elements, performs operations comprising (Col 11, Lines 54-64, Dravida et al disclosed on how the apparatus is stored on a memory): maintaining one or more sets of routing information; wherein said maintaining one or more sets of routing information includes (Col 4 Lines 59-68, Dravida et al disclosed the routing tables): computing an updated set of routing information based on a received network topology change indication (Col 4 Lines 67-68, Col 5 Lines 1-5, Dravida et al disclosed on how each node sends its routing information), the updated set of routing information

including changes in one or more routes (Col 4 Lines 67-68, Col 5 Lines 1-5, Dravida et al disclosed on how each node sends its routing information), the network topology change indication being one of a progressive series of network changes with at least one more associated network topology change indication of the progressive series of network changes expected to be received in the future (Col 4 Lines 59-68, Dravida et al disclosed on routing tables are updated whenever there are changes in the network);

Dravida et al did not explicitly state that said updated routing information does not change nexthop information of said maintained one or more sets of routing information, and determining not to update said one or more sets of routing information based on the updated set of routing information.

But Dravida et al does disclose on how routing information is updated whenever there are topological changes in the network, for example when a node or link is added or deleted (Col 4 Lines 59-62), and the next hops are not modified by recalling more than once (Col 4 Lines 64-66, which will create network loops in routing table), when the routing tables are updated

Therefore, it would have been obvious to an ordinary person skilled in the art at the time of the invention, to have routers obtain updated routing tables without changing next hop entries as this information is edited on the routing tables, one can keep the next hops information constant (without repeating new next hops), while updated route paths between links/nodes in the network are added to the routing entries.

Claim 2, has similar limitations as of Claim 1, therefore it is rejected under the same rationale as Claim 1 (See Motivation above).

Consider Claim 3, Dravida et al disclosed Claim 3 the apparatus of claim 1, wherein the network topology change indication identifies one or more routing metric changes (Col 3 Lines 20-27, Weight, which is a network metric value is added to each possible path) and a value identifying that said at least one more associated network topology change indication of the progressive series of network changes is expected to be received in the future (Col 8 Lines 22-27, Weight, which is a network metric value, is added to each node, when there is topological change in the network).

Consider Claim 4, Dravida et al disclosed the apparatus of claim 1, wherein said maintaining one or more sets of routing information includes: in response to identifying a timeout condition corresponding to the updated set of routing information subsequent to said determination of not to update said one or more sets of routing information based on the updated set of routing information (Dravida et al, Col 2 Lines 65-67, time-out conditions can occur if the routing tables are not stored/updated fast enough in the network), updating said one or more sets of routing information based on the updated set of routing information (Col 4 Lines 67-68, Col 5 Lines 1-5, Dravida et al disclosed on how each node sends its routing information).

Claim 5, has similar limitations as of Claim 1, therefore it is rejected under the same rational as Claim 1.

Consider Claim 6, Dravida et al disclosed the method of claim 5, wherein the network topology change indication (Col 4 Lines 59-68) corresponds to switching to a computed backup path (Col 9 Lines 1-10, Alternate paths are also created, when network topology is changed).

Claim 7, has similar limitations as of Claim 4, therefore it is rejected under the same rational as Claim 4.

Claim 8, has similar limitations as of Claim 1, therefore it is rejected under the same rational as Claim 8.

Claim 9, has similar limitations as of Claim 2, therefore it is rejected under the same rational as Claim 2.

Claim 10, has similar limitations as of Claim 3, therefore it is rejected under the same rational as Claim 3.

Claim 11, has similar limitations as of Claim 4, therefore it is rejected under the same rational as Claim 4.

Claim 12, has similar limitations as of Claim 1, therefore it is rejected under the same rational as Claim 1.

Claim 13, has similar limitations as of Claim 4, therefore it is rejected under the same rational as Claim 4.

Claim 14, has similar limitations as of Claim 1, therefore it is rejected under the same rational as Claim 1.

Claim 15, has similar limitations as of Claim 2, therefore it is rejected under the same rational as Claim 2.

Claim 16, has similar limitations as of Claim 3, therefore it is rejected under the same rational as Claim 3.

Claim 17, has similar limitations as of Claim 4, therefore it is rejected under the same rational as Claim 4.

Response to Arguments

Applicant's arguments filed 2/25/08 have been fully considered but they are not persuasive.

Applicant argues that the prior art Dravida et al US Pat 5,253,248 does not teach the limitations "regarding of not applying a routing update in response to an expectation of at least one more update in the progressive set of updates and that this intermediate updated information does not change next hop information".

It would be obvious to a person skilled in the art to see that Dravida et al disclosed on how updates to the routers occur when there is new topographical change in the network's link/nodes (Col 4 Lines 56-67), it then can update the routing tables, and at the same time the routing tables are designed to yield minimum hop paths to all destinations in such a way so that there is no looping with the hops (Col 4 Lines 64-67). It can be seen by an obvious person skilled in the art that routing tables do not have next hop information updated, even if the nodes/links are updated, as static entries can be added to the routing tables when the tables are updated.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANISH SIKRI whose telephone number is 5712701783. The examiner can normally be reached on 8am - 5pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2154

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Anish Sikri

a.s.

June 5, 2008

/Nathan J. Flynn/

Supervisory Patent Examiner, Art Unit 2154